IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant:	Wing Lee	Group Art Unit:	3621
Serial No.:	10/619,296	Examiner:	Winter, John M.
Filed:	July 14, 2003	Confirmation No.:	6314
For:	INTEGRATION INFRASTRUCTURE		

REPLY BRIEF

Mail Stop Appeal Brief – Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's Answer dated August 19, 2009, Appellant submits this Reply Brief.

I. STATUS OF CLAIMS

A. Total Number of Claims in the Application

The claims in the application are: 43-78

B. Status of All Claims in the Application

1. Claims canceled: 1-42
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 43-78
4. Claims allowed: None
5. Claims rejected: 43-78

C. Claims on Appeal

The claims on appeal are: 43-78

D. Status of Amendments

No amendments were filed after the January 16, 2009 Final Office Action.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 43-78 are rendered obvious under 35 U.S.C. § 103(a) by Suarez, U.S. Pat. No. 5,790,789, (hereinafter Suarez) in view of Hejlsberg, et al., U.S. Pat. No. 7,165,239 (hereinafter Hejlsberg), and further in view of Bowman-Amuah, U.S. Pat. No. 6,742,015 (hereinafter Bowman-Amuah).

III. RESPONSE TO ARGUMENTS OF THE EXAMINER'S ANSWER

A. An enterprise integration layer is not merely a series of messages exchanged between the client and the server in order to synchronize "events."

Claim 43 recites, "automatically publishing, by the enterprise integration layer, business events in accordance with the interactions between the front-office systems and back-office systems." The Examiner's Answer states that "[t]he Examiner further submits that the applicants claimed feature of an 'integration layer[']' is merely a series of messages exchanged between the client and the server in order to synchronize 'events'." (See, Examiner's Answer, p. 12). Appellant respectfully disagrees.

The Application states that the enterprise integration layer integrates the front end clients with back end systems. (See, Application, at 5, ¶ [0019], lines 1-2). The Application further states that "[t]he front-end clients … can use the EI layer 100 to access back-end systems where data is hidden from the client applications." (See, Application, at 5, ¶ [0019], lines 2-4). Additionally, "[t]he EI layer 100 provides access to data located in two types of stores, back-end systems such as P2K 150, NMS 160, and Renaissance 170, and an integrated database of operational data that can be referred to as the Operational Data Store (ODS) 180." (See, Application, at 5, ¶ [0019], lines 4-7). Claim 43 recites "brokering interactions, by an enterprise integration layer, between the back office systems that provide data and services and front-office systems that use the enterprise integration layer to access the data

and the services provided by the back office-systems through the interactions" which is consistent with the disclosure provided in paragraph [0019] of the Application. Thus, it is clear that the enterprise layer is not "merely a series of messages exchanged between the client and the server in order to synchronize 'events'" as asserted by the Examiner. Further, claim 43 specifies that the enterprise integration layer comprises various components. For example, claim 43 recites, "the enterprise object model in the enterprise integration layer," "a business object server of the enterprise integration later," and "a set of adapters of the enterprise integration layer."

B. Agents are not equivalent to an enterprise integration layer.

The Examiner's Answer states "that a client server architecture and the use of agents are not mutually exclusive because they are different classes of processes. The Examiner submits that one skilled in the art at the time of the invention would clearly recognize the client server architecture would invoke agents as a messaging system between the client and server (as disclosed by Suarez [Abstract])." (See, Examiner's Answer, p. 14). Applicants disagree.

The pending Application does not disclose agents. The Examiner's Answer further states that "the disclosed process of agents exchanging messages is analogous to the claimed feature of 'automatically publishing, by the enterprise integration layer, business events in accordance with the interactions between the front-office systems and back-office systems' and therefore a prima facie case of

rejection has been established." (See, Examiner's Answer, p. 13). However, a plurality of agents as taught by Suarez is not equivalent to an enterprise integration layer as required by claim 43. Agents are fundamentally different from an enterprise integration layer. Suarez states that "Agents within the presently disclosed system are broadly classified as intelligent agents that provide both interconnectivity and services on behalf of a user or another agent with some degree of autonomy." (See, Suarez, col. 9, lines 17-20). Thus, each agent provides point-to-point connectivity between an agent and a user or another agent. Agents as disclosed by Suarez do not publish anything.

Additionally, even if Suarez disclosed a client-server architecture, which Appellant does not admit, that claim 43 of the pending application may be directed to a client-server architecture is not dispositive of whether Suarez teaches or suggests the specific elements of claim 43. Claim 43 requires specific elements configured in a specific manner. Among the required elements is an enterprise integration layer. The enterprise integration layer becomes aware of business events and does not merely pass on data and messages. (See, Application, at 10, ¶ [0035], lines2-3). Such a feature is not disclosed by Suarez.

C. Suarez in view of Hejlsberg and Bowman-Amuah does not teach or suggest defining objects in an enterprise object model that model data and services provided by back-office systems.

Claim 43 requires "defining objects in an enterprise object model that model data and services provided by back-office systems." The Examiner alleges that Suarez discloses this feature. (See, Examiner's Answer, p. 15). Appellant respectfully disagrees.

The Examiner's Answer states that "[o]nce a computer host is selected, the initialization of the system begins by defining all known participants, hosts, services, agents, workflows, and other objects that are to be included in the distributed computing system." (See, Examiner's Answer, p. 15). The Examiner's Answer further states "[t]he basic processes include (1) invoking agents and launching the associated services; (2) cooperatively performing prescribed tasks through the sending and receiving of electronic messages between services via their associated agents; and (3) detaching agents and the associated services from the system. The prescribed tasks can be defined, for example as a workflow or can be defined and developed by individual participants as the need arises." (See, Examiner's Answer, p. 15). The basic processes listed by the Examiner is not "defining objects in an enterprise object model that model data and services provided by back-office systems." The enumerated items do not include "defining" anything, but merely list several processes allegedly disclosed by Suarez. The fact that the "prescribed tasks can be defined as a workflow or defined by individual participants" does not address whether Suarez discloses "defining objects in an enterprise object model that model data and services provided by back-office systems." The fact that the enumerated

processes may fit a given definition does not equate to claim 43's required element of "defining."

Appellant respectfully notes the description of enterprise object models found in paragraphs [0043]-[0044] of the pending Application. In contrast to the disclosure of Suarez, an object of the enterprise object model **models** data or services provided by the back-office systems. For example, as disclosed in paragraph [0044], an object may be mapped to/from data and services. As noted in paragraph [0044], the mappings between objects and the data or services that they model may be one-to-one, one-to-many, or many-to-many. Paragraph [0049] discloses that a single object may be used to aggregate data from multiple back-office systems. Similarly, a single object may be broken up for storage in multiple back-office systems. Paragraph [0050] discloses that a single method call of an object may be translated into multiple service invocations in back-office systems.

D. Claims 43-78 were wrongly rejected because none of the limitations are optional, and conditional is not equivalent to optional.

The Examiner's Answer states that "the language of claim 43 'accessed objects that enable the interactions' is not a positive claim limitation, the mere enablement of a process does not distinguish over the prior art record." (See, Examiner's Answer, p. 16). The Examiner's Answer, further states "[a]pplicant(s) are reminded that optional or conditional elements do not narrow the claims because they can always be omitted." (See, Examiner's Answer, p. 16). Claim 43 requires

"implementing, with a business object server of the enterprise integration layer coupled to the client access interfaces, data functions and service methods associated with the accessed objects that enable the interactions between the front-office systems and back-office systems." The phrase "accessed objects that enable the interactions" further defines the attributes of the data functions and service methods that are implemented. Thus, the phrase specifies which data functions and service methods are implemented. Namely, the data functions and service methods that are implemented are those data functions and service methods that are associated with the accessed objects that enable the interactions between the front-office systems and back-office systems. Thus, the word "enable" does not render anything optional, but rather indicates which of the various data functions and service methods that are implemented.

E. Claims not previously addressed.

1. Bowman-Amuah does not disclose "providing distributed transactional quality of service through a transaction processor within the enterprise integration layer" as required by claims 56 and 66.

Claims 56 and 66 include the limitation of "providing distributed transactional quality of service through a transaction processor within the enterprise integration layer." Although not addressed before, the Examiner's Answer submits that this feature is disclosed by Bowman-Amuah at column 54, lines 19-26 without

explanation. (See, Examiner's Answer, pp. 16-17). Appellant respectfully disagrees. Bowman-Amuah, column 54, lines 19-26 states:

> Synchronization Services perform the transactions required to make one or more information sources that are intended to mirror each other consistent. They support the needs of intermittently connected users or sites. Just like for databases, these services are especially valuable for users of mobile devices that need be able to work locally without a constant network connection and then be able to synchronize with the central server at a given point in time.

While this passage may disclose the word "transactions", nothing in this passage discloses, for example, "quality of service" as required by claims 56 and 66. Rather this passage is directed to mirroring and synchronization. Therefore, Bowman-Amuah does not disclose the feature of "providing distributed transactional quality of service through a transaction processor within the enterprise integration layer."

2. Hejlsberg does not disclose "making data persistent within a local data store of the enterprise integration layer" as required by claims 57 and 67.

Claims 57 and 67 include the limitation of "making data persistent within a local data store of the enterprise integration layer." Although not addressed before, the Examiner's Answer submits, without explanation, that this feature is disclosed by Hejlsberg at column 5, lines 61 – column 6, line 7. (See, Examiner's Answer, p. 17). Appellant respectfully disagrees. Heljsberg, column 5, line 61 - column 6, line 7 states:

> The framework 132 encapsulates the operating system 146(1) (e.g., Windows®-brand operating systems) and object model services 146(2) (e.g., Component Object Model (COM) or Distributed COM). The operating system 146(1) provides conventional functions, such as file management, notification, event handling, user interfaces (e.g., windowing, menus, dialogs, etc.), security, authentication, verification, processes and threads, memory management, and so on. The object model services 146(2) provide interfacing with other objects to perform various tasks. Calls made to the API layer 142 are handed to the common language runtime layer 144 for local execution by the operating system 146(1) and/or object model services 146(2).

Nothing in this passage discloses "making data persistent within a local data store." Therefore, Hejlsberg does not teach or suggest "making data persistent within a local data store of the enterprise integration layer" as required by claims 57 and 67.

3. Hejlsberg does not disclose "using previously existing infrastructure services within the enterprise for the enterprise integration layer" as required by claims 59 and 69.

Claims 59 and 69 include the limitation of "using previously existing infrastructure services within the enterprise for the enterprise integration layer." Although not addressed before, the Examiner's Answer submits, without explanation, that this feature is disclosed by Hejlsberg at column 5, lines 61 – column 6, line 7. (See, Examiner's Answer, p. 17). Appellant respectfully disagrees. This passage does not disclose "using previously existing infrastructure services within the enterprise integration layer," but merely discloses encapsulating the operating system and providing interfacing with various objects to perform various tasks. As

noted previously, Hejlsberg does not teach or suggest an enterprise integration layer.

4. Hejlsberg does not disclose "the previously existing infrastructure services are selected from a group of services consisting of a naming and directory service, a security service, and an application management and monitoring system" as required by claims 60 and 70.

Claims 60 and 70 include the limitation that "the previously existing infrastructure services are selected from a group of services consisting of a naming and directory service, a security service, and an application management and monitoring system." This limitation was not addressed prior to the commencement of the present appeal. However, the Examiner's Answer states, without elaboration, that this feature is disclosed by Hejlsberg at column 5, lines 61 – column 6, line 7. (See, Examiner's Answer, p. 17). Appellant respectfully disagrees. Claim 60 depends from claim 59 and claim 70 depends from claim 69. Thus, the group of services from which the previously existing infrastructure services are selected must be within the enterprise integration layer. As noted previously, none of Bowman-Amuah, Suarez, or Hejlsberg teaches or suggest an enterprise integration layer. Thus, Hejlsberg does not teach or suggest that "the previously existing infrastructure services are selected from a group of services consisting of a naming and directory service, a security service, and an application management and monitoring system."

5. Hejlsberg does not disclose "the previously existing infrastructure services include each of a group of services comprising a

naming and directory service, a security service, and an application management and monitoring system" as required by claims 61 and 71.

Claims 61 and 71 include the limitation that "the previously existing infrastructure services include each of a group of service comprising a naming and directory service, a security service, and an application management and monitoring system." This limitation was not addressed prior to the commencement of the present appeal. However, the Examiner's Answer states, without elaboration, that this feature is disclosed by Hejlsberg at column 5, lines 61 – column 6, line 7. (See, Examiner's Answer, pp. 17-18). Appellant respectfully disagrees for reasons similar to those expressed above.

6. Bowman-Amuah does not disclose that "rules regarding the transforming of the accessed common format descriptions of the data and the services into the format of the back-office systems, and rules regarding mapping each of the back-office systems to an appropriate adaptor in the set of adaptors" as required by claim 64.

Claim 64 includes the limitation of "rules regarding the transforming of the accessed common format descriptions of the data and the services into the format of the back-office systems, and rules regarding mapping each of the back-office systems to an appropriate adaptor in the set of adaptors." This limitation was not addressed prior to the commencement of the present appeal. However, the Examiner's Answer states, with minimal explanation, that this feature is disclosed by Bowman-Amuah at column 120, line 31 regarding the discussions of Application

logic. (See, Examiner's Answer, p. 18). Appellant respectfully disagrees. Bowman-Amuah, column 120, lines 32-39 states:

> Application Logic is the expression of business rules and procedures (e.g., the steps and rules that govern how a sales order is fulfilled). As such, the Application Logic includes the control structure that specifies the flow for processing for business events and user requests. The isolation of control logic facilitates change and adaptability of the application to changing business processing flows.

Thus, Bowman-Amuah discloses rules, but these rules are for specifying the flow of processing for business events and user requests and not for "transforming of the accessed common format descriptions of the data and the services into the format of the back-office systems" as required by claim 64.

6. Bowman-Amuah does not disclose that "the at least one of the business events and the transformed data related to the at least one of the business events are combined in a single packet and published by the messaging interface of the messaging system or are independently published by the messaging interface of the messaging system" as required by claim 73.

Claim 73 includes the limitation that "the at least one of the business events and the transformed data related to the at least one of the business events are combined in a single packet and published by the messaging interface of the messaging system or are independently published by the messaging interface of the messaging system." This limitation was not addressed prior to the commencement

of the present appeal. However, the Examiner's Answer states, with minimal explanation, that this feature is disclosed by Suarez at column 21, line 15 relating to discussion of Queue service. (See, Examiner's Answer, p. 18). Appellant respectfully disagrees. Suarez, column 21, lines 16-34 states:

> The Queue service provides the basic messaging capability for agents and associated services. In particular, the queue service provides distributed queues for agents. The queues are used for storing messages sent to agents for processing. A queue is also used for store and forward capabilities when an agent is not available to receive a message for reasons such as the host containing a selected service is unavailable. Within the present embodiment, queues can be created, modified, or deleted for any given agent through the use of the queue services. Moreover, it is the user who determines if an agent is to use a persistent queue or other queue (e.g., vendor-supplied queue) to store messages. A persistent queue is one in which the messages placed in that queue are stored on disk. The user can also manipulate the size of the queue, the general priority of the queue, a maximum time in which a message may reside in a queue, and whether the sender is notified when the message has been queued.

This passage discloses the provision of basic messaging capability for agents and associated services. Among other deficiencies, this passage in Suarez does not teach or suggest anything regarding combining anything into a single packet or independently publishing an event and data related to the event as required by claim 73.

IV. CONCLUSION

In view of the above arguments the Appellant respectfully requests that the final rejection of the claims be reversed and the case advanced to issue. Should the Examiner feel that a telephone interview would advance prosecution of the present application, the Appellant invites the Examiner to call the attorneys of record.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, of Sprint Communications Company L.P.

Respectfully submitted,
CONLEY ROSE, P.C.

Date: October 19, 2009

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